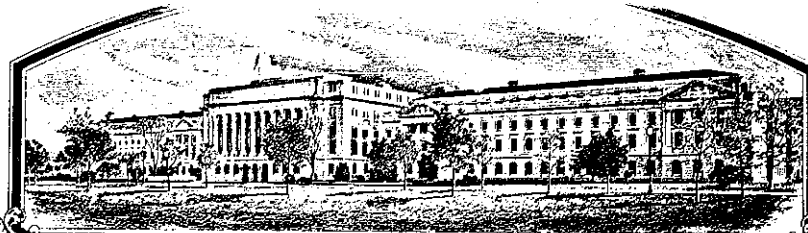


No.



8000019

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:
Koninklijk Kweekbedrijf en Zaadhandel
D. J. van der Have B. V.

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS OFFICIAL SEED OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS REQUIRED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PERENNIAL RYEGRASS

'Bianca'

In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington
this 11th day of March in
the year of our Lord one thousand nine
hundred and eighty-two.

Attest:

Kenneth H. Egan

Acting

Commissioner

Plant Variety Protection Office



UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

FORM APPROVED
OMB NO. 40-R3822

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY HE 118		1b. VARIETY NAME Bianca		FOR OFFICIAL USE ONLY PV NUMBER 8000019	
2. KIND NAME Perennial ryegrass		3. GENUS AND SPECIES NAME Lolium perenne		FILING DATE 12-20-79	TIME 10:00 A.M.
4. FAMILY NAME (BOTANICAL) Graminae		5. DATE OF DETERMINATION 1975		FEE RECEIVED \$ 500.00 \$ 250.00	DATE 12-20-79 12-19-80
6. NAME OF APPLICANT(S) Koninklijk Kweekbedrijf en Zaad- handel D.J. van der Have B.V.		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P.O. Box 1 4420 AA Kapelle, Netherlands		8. TELEPHONE AREA CODE AND NUMBER	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation		10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION Netherlands		11. DATE OF INCORPORATION 8th March 1973	
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS: Mr. Stan Rollin Laurel, Md. 20810 6802 Orem Drive					
13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:					
<input checked="" type="checkbox"/> 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)					
<input checked="" type="checkbox"/> 13B. Exhibit B, Novelty Statement.					
<input checked="" type="checkbox"/> 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)					
<input checked="" type="checkbox"/> 13D. Exhibit D, Additional Description of the Variety.					
14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a). (If "Yes," answer 14B and 14C below.) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED? 8x 9/3/81 <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED			
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes," give name of countries and dates.) Germany 19th. September 1975 Netherlands 16th January 1976 United Kingdom 4th November 1975					
15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If "Yes," give name of countries and dates.) Germany 1st March 1979 Netherlands 3rd January 1979					
16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					

4 December 1979
(DATE)

D.J. Glas
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

6/51 07 030

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

Exhibit A.

Origin and breeding history of the variety.

Material was collected in England in 1967. The collected families were tested under lawn and playing field conditions. The best performing families were planted in a field as single plants at wide spacing. Plants with a matching appearance were selected for the composition of several experimental varieties, which were recombined in a randomized, replicated isolation block for the production of Syn-1 seed.

The experimental varieties were observed in lawn trials on clay and sandy soil. The experimental variety HE 118 proved to possess superior turf quality. It therefore was decided to produce enough breeders' seed for the anticipated need over the next 15 years and to release HE 118 under the varietal name Bianca.

No off-type plants or variants have been observed in the sexual reproduction and multiplication of this variety.

Re.: Ryegrass Application No. 8000019 Bianca.

Exhibit A. (Amendment)

No variants were observed in 2 generations of reproduction and the variety was stable during 2 generations of reproduction.

RYEGRASS APPLICATION NO. 800019, 'Bianca'

EXHIBIT A

Addendum

Bianca originates from a collection of material made in South-England. None of the collected material was from a public or commercial varieties.

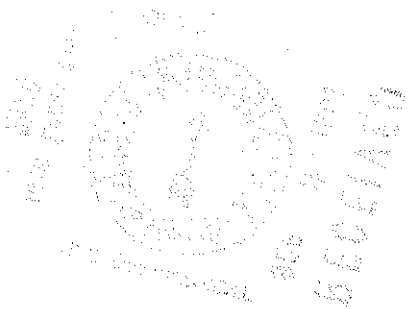


EXHIBIT A

STAN ROLLIN
SEED CONSULTANT
6802 OREM DRIVE
LAUREL, MD. 20707
October 19, 1981

Mr. Eldon E. Taylor

Examiner
Plant Variety Protection Office
L, P, G & S Division, AMS, USDA,
National Agricultural Library Bldg.,
Room 500
Beltsville, MD. 20705

Subject: Ryegrass Application No. 8000019, 'Bianca'

In reply to your letter of September 14, 1981, the number of clones from which 'Bianca' was derived was 6; however, the clones did not have any particular identification as they were selected from within the ecotype that was collected in England.

An amendment to Exhibit A is enclosed indicating that no variants were observed and the variety remained stable through two generations of reproduction.

Sincerely yours,


STAN ROLLIN

cc van der Have

PERENNIAL RYEGRASS BIANCA

Exhibit B Novelty statement

Novelty of BIANCA is based on the unique combination of the following characteristics:

- early maturity
- lighter green colour than MANHATTAN
- resistance to *Corticium fuciforme*

BIANCA is most similar to MANHATTAN, except that BIANCA has a 5-days earlier maturity which proved to be significant at the $P = 0.01$ level during 1977, 1978 and 1979 (data provided by the Government Institute for Variety Testing (RIVRO) at Wageningen, Netherlands):

Maturity (days):

Year	BIANCA	MANHATTAN	LSD _{0.01}
1977	64	71	2.5
1978	58	63	2.8
1979	53	67	2.3

BIANCA differed significantly from MANHATTAN at the $P = 0.05$ level by a longer flag leaf in 1978 and 1979:

Flag leaf length (cm)

Year	BIANCA	MANHATTAN	LSD _{0.05}
1978	15.6	13.9	1.5
1979	14.8	13.4	1.2

BIANCA displayed a significant narrower flag leaf than MANHATTAN at the $P = 0.01$ level in 1977:

Flag leaf width (mm)

Year	BIANCA	MANHATTAN	LSD _{0.01}
1977	4.1	4.6	0.37

The spike of BIANCA was 4 cm shorter than that of MANHATTAN and this difference was significant at the $P = 0.01$ level in 1977:

Spike length (cm)

Year	BIANCA	MANHATTAN	LSD _{0.01}
1977	14.6	18.6	1.4

FORM GR-470-36
(9-76)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782
OBJECTIVE DESCRIPTION OF CULTIVARS
RYEGRASS
(*Lolium* spp.)

NAME OF APPLICANT(S) Koninklijk Kweekbedrijf en Zaadhandel D.J. van der Hage B.V.	VARIETY NAME OR TEMPORARY DESIGNATION Bianca
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) P.O. Box 1 4420 AA Kapelle, Netherlands	FOR OFFICIAL USE ONLY PVPO NUMBER 8000019

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in first box (e.g. 089 or 09-) when number is either 99 or less or 9 or less. Descriptions of characters should represent those that are typical for the variety. Ranges may be given also. Measured data should be for SPACED PLANTS. Give additional description for all characteristics that cannot be adequately described in the form below. Append all pertinent comparative trial and evaluation data.

1. SPECIES:

2 1 = L. MULTIFLORUM (annual or Italian: includes Westerwoldicum) 2 = L. PERENNE (perennial) 3 = L. RIGIDUM (includes Wimmera)
4 = HYBRID (of species) 5 = OTHER (Specify) _____

2. PLOIDY:

1 1 = DIPLOID 2 = TETRAPLOID 3 = OTHER (Specify) _____

3. DURATION:

3 1 = ANNUAL OR BIENNIAL 2 = SHORT LIVED PERENNIAL (3-4 years) 3 = PERENNIAL (more than 4 years)

STANDARD CULTIVARS
1 = GULF 2 = WIMMERA 62 3 = LINN 4 = PELO
5 = NORLEA 6 = ABERYSTWYTH S-23 7 = MANHATTAN 8 = PENNFINE

4. MATURITY (50% HEADED) Use standards from above for comparison: Test area: 52°NL Wageningen Netherlands

5 1 = VERY EARLY 3 = EARLY 0 5 DAYS EARLIER THAN 7 STANDARD CULTIVAR
5 = MEDIUM 7 = LATE
9 = VERY LATE DAYS LATER THAN STANDARD CULTIVAR

5. MATURE PLANT HEIGHT (Use standard cultivars from above):

0 7 3 CM. HIGH CM. SHORTER THAN STANDARD CULTIVAR
0 0 1 CM. TALLER THAN 7 STANDARD CULTIVAR

6. PERCENT WINTER DAMAGE (estimated as percent of the area appearing dead). Use standard cultivars from above for comparison:

0 8 0 PERCENT DAMAGE OF APPLICATION CULTIVAR
0 7 5 PERCENT DAMAGE OF 7 STANDARD CULTIVAR

7. TURF DENSITY Use standard cultivars from above:

TILLERS PER 100 SQ. CM.
 LESS TILLERS PER 100 SQ. CM. THAN STANDARD CULTIVAR
 MORE TILLERS PER 100 SQ. CM. THAN STANDARD CULTIVAR

8. FLAG LEAF (at full growth) Use standard cultivars from above:

1 4 4 CM. LENGTH (from ligule to tip) 0 4 4 MM. WIDTH (at widest point)
 CM. SHORTER THAN STANDARD CULTIVAR 7 FLAG LEAF AT BOOT STAGE: 1 = DEFLEXED
0 1 2 CM. LONGER THAN 7 STANDARD CULTIVAR 3 = RECURVED
0 0 2 MM. NARROWER THAN 7 STANDARD CULTIVAR 5 = HORIZONTAL
7 = SEMI-ERECT
9 = ERECT

STANDARD CULTIVARS

1 = GULF
5 = NORLEA2 = WIMMERA 62
6 = ABERYSTWYTH S-233 = LINN
7 = MANHATTAN4 = PELO
8 = PENNFINE

9. LEAVES:

3

1 = LEAVES ROLLED IN YOUNG SHOOTS
VERNATION: 2 = LEAVES SEMI-ROLLED (folded with rolled edges)
3 = LEAVES FOLDED IN YOUNG SHOOTS

1 0 0

% PLANTS WITH ANTHOCYANIN IN LOWER LEAF SHEATH

2

FOLIAGE COLOR:

1 = YELLOW GREEN
2 = MEDIUM GREEN
3 = BLUE GREEN

10. SPIKE:

1 6 6

MM. SPIKE LENGTH (tip to internode below lowest floret)

2 1

MM. SHORTER THAN

7

MM. LONGER THAN

USE STANDARD CULTIVARS FROM ABOVE

MG. PER TEN SPIKES (trimmed to internode below lowest floret)

MG. LIGHTER PER TEN SPIKES THAN

USE STANDARD CULTIVARS FROM ABOVE

MG. HEAVIER PER TEN SPIKES THAN

FLORETS PER SPIKELET

PERCENTAGE OF PLANTS WITH:

RACHIS:

1 0 0

% SMOOTH

% ROUGH

SPIKE COLOR:

1 0 0

% GREEN

% PURPLE

LEMMA:

% AWNED

MM. AWN LENGTH

5.3

MM. GLUME LENGTH

1

1 = SPIKELET LENGTH NEARLY EQUAL TO OUTER GLUMES
2 = SPIKELET LENGTH MUCH LONGER THAN OUTER GLUMES

11. COLEOPTILE:

1 0 0

% PLANTS WITH ANTHOCYANIN IN COLEOPTILE

12. ANTHOR COLOR:

% PLANTS WITH WHITE ANTHERS

1 0 0

% PLANTS WITH YELLOW ANTHERS

% PLANTS WITH PURPLE ANTHERS

13. ROOT AND PLANT CHARACTERS:

1 0 0

% PLANTS WITH PROSTRATE GROWTH HABIT

% PLANTS WITH FLUORESCENT ROOTS

% PLANTS WITH UPRIGHT GROWTH HABIT

14. SEED:

1.78

MG. PER 1,000 SEED

5.24

MM. TOTAL LENGTH OF 10 SEEDS

1.27

MM. TOTAL WIDTH OF TEN SEEDS

15. DISEASE (0 = NOT TESTED, 2 = HIGHLY SUSCEPTIBLE, 4 = MODERATELY SUSCEPTIBLE, 6 = MODERATELY RESISTANT, 8 = HIGHLY RESISTANT):

<input type="text" value="6"/>	CROWN RUST (<u>Puccinia coronata</u>)	<input type="text"/>	DOLLAR SPOT (<u>Sclerotinia</u>)	<input type="text"/>	BROWN PATCH (<u>Rhizoctonia</u>)
<input type="text"/>	LEAF SPOT (<u>Helminthosporium</u>)	<input type="text"/>	MILDEW	<input type="text"/>	OTHER (<u>Specify</u>)
<input type="text"/>	SNOW MOLD (<u>Typhula</u>)	<input type="text" value="6"/>	RED THREAD (<u>Corticium</u>)		

16. INSECT (0 = NOT TESTED, 2 = HIGHLY SUSCEPTIBLE, 4 = MODERATELY SUSCEPTIBLE, 6 = MODERATELY RESISTANT, 8 = HIGHLY RESISTANT):

(Specify) _____

17. GIVE RESEMBLANCE VALUE IN LEFT COLUMN AND VARIETY CODE NUMBER IN RIGHT COLUMN FOR VARIETY WITH WHICH COMPARISON IS MADE (1 = LESS THAN, 2 = SAME AS, 3 = MORE ERECT, MORE RESISTANT, DENSER, MORE PERSISTENT, DARKER OR GREATER HEIGHT.):

RESEMBLANCE	CHARACTER	SIMILAR VARIETY
<div>3</div>	PLANT HABIT (erectness)	<div>7</div> 1 = GULF
<div>2</div>	TILLERING	<div>7</div> 2 = WIMMERA 62
<div>1</div>	WINTER HARDINESS	<div>7</div> 3 = LINN
<div></div>	HIGH TEMP. STRESS RESISTANCE	<div></div> 4 = PELO
<div>2</div>	TURF PERSISTENCE	<div>7</div> 5 = NORLEA
<div>1</div>	PLANT COLOR	<div>7</div> 6 = ABERYSTWYTH S-23
<div></div>	VERTICAL SEEDLING GROWTH RATE	<div></div> 7 = MANHATTAN
<div></div>	CROWN DENSITY	<div></div> 8 = PENNFINE
<div></div>	MOWER SHREDDING RESISTANCE	<div></div>

18. GIVE AREA OF ADAPTATION AND INTENDED USE: ☒ _____

19. GIVE AREA TEST RESULTS PRESENTED FROM: _____

COMMENTS:

☒ The southern boundary of the NE cool humid region, e.g. Oklahoma, Central Missouri to Central Virginia.

In the Western parts: Western Washington, Oregon and Upper California.

For overseeding the southern States.

8000019

Exhibit D.

Additional Description of the Variety.

Bianca is especially suited for use under lawn conditions in contrast with Manhattan which is better adapted to playing field conditions.

RYEG

PV No. 8000019
(Bianca)

An excess seed sample of this variety was returned to the PVP Office by the National Seed Storage Laboratory. The excess seed was destroyed by PVPO personnel on JUL 15 1994.